

REMARKS

Entry of this Amendment under 37 C.F.R. § 1.116 is respectfully requested because it raises no new issues and places the application in condition for allowance or in better form for appeal. No new matter is believed to be added to the application by this Amendment.

Status of the Claims

Claims 1-18 are pending in the application and stand rejected. The amendments to the claims clarify the language, and find support at page 5, lines 2-5 of the specification.

Rejection Under 35 U.S.C. 102(b) Over Kim

Claims 9 and 10 remain rejected under 35 U.S.C. 102(b) as being anticipated by Kim (U.S. Patent 5,335,103). Applicant traverses.

The liquid crystal display as embodied in claim 9 includes upper and lower substrates. The lower substrate has an indentation extending from an injection port to a side of the lower substrate. Liquid crystal material is interposed between the upper and lower substrates. A seal pattern is formed between the upper and lower substrates, and the seal pattern has an injection port.

Kim pertains to a liquid crystal device with a double seal pattern. Figure 2 of Kim shows a liquid crystal display panel having two seal patterns 23 and 26. The inner seal pattern 23 forms a first injection port 24, and the second seal pattern 26 forms a second injection port 27. From Figure 2 of Kim, it is clear that

the liquid crystal injection ports 24 and 27 combine to form a single opening to transport liquid crystal material to the active area 21.

Kim fails to disclose or suggest an indentation, such as feature 113 shown in Figure 7 of the application (see also claim 9).

That is, Kim discloses two injection ports 24, 27 that define a much more complicated structure than the indentation 113 of the present invention. Also, the indentation 113 of the present invention is indented from the side of the lower substrate 102. In comparison, the second injection port 27 of Kim is an adhesive insulating epoxy formed on the substrate 22. See Kim at column 3, lines 21-23. Also, at page 3, lines 17-18 of the Office Action, the Examiner states: "The word 'indentation' is not in the claims." However, the amended claims recite the indentation, thus clearly differentiating the invention from Kim.

As a result, Kim discloses a complicated seal pattern having a fundamentally different structure from the simple and efficient indentation of the present invention. Kim thus fails to anticipate the invention as claimed in claims 9 and 10. Accordingly, this rejection is overcome and withdrawal thereof is respectfully requested.

Rejection Under 35 U.S.C. 103(a) Over Kim in View of Applicant's Disclosure

Claims 11-15 are rejected under 35 U.S.C. 103(a) as being obvious over Kim in view of Applicant's disclosure. Applicant traverses.

The deficiencies of Kim have been discussed above. Also, at page 3, lines 17-18 of the Office Action, the Examiner states: "The word 'indentation' is not in the claims. " However, the amended claims recite the indentation, thus clearly differentiating the invention from Kim.

The Examiner alleges that the Applicant's disclosure contains admitted prior art that address the deficiencies of Kim sufficient to allege *prima facie* obviousness.

However, no admission as to prior art has been made by the Applicant. The utilization of an Applicant's disclosure to allege prior art is an improper rejection, as has been repeatedly pointed out by the courts. The impropriety of this type of rejection has recently been pointed out in Riverwood International Corporation v. R.A. Jones & Co., Inc., 324 F.3d 1346, 66 USPQ 2d 1331 (CAFC March 31, 2003). For the Examiner's convenience, the relevant portion of Judge Linn's decision is set forth below:

This court and its predecessor have held that a statement by an applicant during prosecution identifying certain matter not the work of the inventor as "prior art" is an admission that the matter is prior art. In re Nomiya, 509 F.2d 566, 571 n.5, 184 USPQ 607, 611 n.5 (CCPA 1975). In Nomiya, the applicants filed a patent application containing two figures labeled as "prior art" and described as such in the specification. Id. at 570-71, 184 USPQ at 611. The examiner rejected the pending claims as obvious over a U.S. patent in light of the two figures. Id. The applicants argued that the figures could not constitute prior art absent a statutory basis in section 102. This court's predecessor disagreed: "By filing an application containing Figs. 1 and 2, labeled prior art, ipsissimis verbis, and statements explanatory thereof appellants have conceded what is to be considered as prior art in determining obviousness of their improvement." Id. at 571, 184 USPQ at 611-12 (footnote omitted). Similarly, in Fout [675 F.2d 297, 300, 213 USPQ 532, 535 (CCPA

1982)], an applicant's admission of actual knowledge of the prior invention of another, which was described in the preamble of a Jepson claim, was held to constitute an admission that the described invention was prior art to the applicant. 675 F.2d at 301, 213 USPQ at 534.

In Reading & Bates Construction Co. v. Baker Energy Resources Corp., 748 F.2d 645, 223 USPQ 1168 (Fed. Cir. 1984), this court again considered an obviousness challenge to a patent in which certain claims referred to the patentee's own patent in both the specification section entitled "Summary of the Prior Art" and in the preamble to a Jepson claim. The Reading & Bates court held that the reference in the Jepson claim preamble to the applicant's own prior work was not prior art, citing the reasoning and policy of Ehrreich that "the preamble, standing alone, was not an admission that one's own prior work is prior art." Id. at 649, 223 USPQ at 1171. It also held that the patentee's discussion of his own patent in the specification section entitled "Summary of the Prior Art" did not constitute an admission that the patent was prior art. In reaching its conclusion, the court reviewed our precedent and recognized the "policy behind requiring a statutory basis before one's own work may be considered as prior art." Id. at 650, 223 USPQ at 1171 (citing In re Fout, 675 F.2d 297, 213 USPQ 532).

[T]here is an important distinction between the situation where the inventor improves upon his own invention and the situation where he improves upon the invention of another. In the former situation, where the inventor continues to improve upon his own work product, his foundational work product should not, without a statutory basis, be treated as prior art solely because he admits knowledge of his own work. It is common sense that an inventor, regardless of an admission, has knowledge of his own work. Id., 223 USPQ at 1172. Riverwood at 66 USPQ 2d 1354-1355.

The Court then concludes that "the present case does not involve a Jepson preamble of an explicit reference in the specification to the prior art...one's own work may not be considered prior art in the absence of a statutory basis and a patentee should not be punished for being as inclusive as possible...." Riverwood at 66 USPQ 2d 1355.

As a result, although a reference can become prior art by admission, prior art cannot be alleged when the subject matter at issue is the inventor's own work, as the Court in Riverwood interprets Nomiya, Fout, Ehrreich and Reading & Bates. Indeed, in the instant invention there is no clear delineation between the old and new of the inventor's work, such as in a Jepson claim. Here, the inventor merely is describing the problem to be solved. Accordingly, the utilization of the Applicant's disclosure as prior art is improper.

A person having ordinary skill in the art would therefore not combine Kim with the conventional art described in the Applicant's disclosure to produce a claimed embodiment of the invention. A *prima facie* case of obviousness has thus not been made.

Accordingly, this rejection is overcome and withdrawal thereof is respectfully requested.

Rejection Under 35 U.S.C. 103(a) Over Kim in View of Yamamoto

Claims 1, 2 and 16-18 are rejected under 35 U.S.C. 103(a) as being obvious over Kim in view of Yamamoto (U.S. Patent No. 6,095,203). Applicant traverses.

Kim, discussed above, fails to disclose a liquid crystal display panel having an open portion. Kim additionally fails to disclose or suggest the indentation, as is set forth in the instantly amended claims. Yamamoto fails to address the deficiencies of Kim.

The Examiner turns to Yamamoto for teachings pertaining to a tray. Figure 21 of Yamamoto shows a tray 12 that is used to evaporate liquid crystalline material. See Yamamoto at column 2, lines 46-47. The Examiner also turns to Figure 4A of Yamamoto, which shows an injection connector 22 having an injection nozzle 46 and a cavity 47. Yamamoto fails to disclose or suggest a tray having a protruded portion such as is shown in Figure 8 of the application, which has a tray 111 with a protruded portion 111a.

That is, the Examiner appears to misconstrue the technology of Yamamoto because the evacuation connectors 23 and 24 are fundamentally different from the injection connector 22. The tray 111 of the instant application may appear superficially similar to the injection connector 22 of Yamamoto. However, the evacuation connectors 23 and 24 of Yamamoto have different functions and roles because the evacuation connectors 23 and 24 are connected to a vacuum pump 42 and act to evacuate the cell and not supply liquid crystals. Thus, the Examiner's assertion at page 4, lines 14-15 of the Office Action: "An injection connector (22) having evacuation connectors (23, 24) that are protruded" represents a fundamental misunderstanding of Yamamoto's technology.

As a result, a person having ordinary skill in the art would not be motivated to produce a claimed embodiment having the indentation of the present invention. Further, a person having ordinary skill in the art would not be motivated by the combination of Kim and Yamamoto to produce a method of filling a liquid crystal material into a liquid crystal display panel, which includes using a tray provided

with a protruded portion. Thus, a *prima facie* case of obviousness has not been made over Kim and Yamamoto.

Accordingly, this rejection is overcome and withdrawal thereof is respectfully requested.

Rejection Under 35 U.S.C. 103(a) Over Kim, Yamamoto and Further in View of Applicant's Disclosure

Claims 3-8 are rejected under 35 U.S.C. 103(a) as being obvious over Kim and Yamamoto as applied to claims 1 and 2 and further in view of the Applicant's disclosure. Applicant traverses.

The deficiencies of Kim, Yamamoto and the conventional art described in the specification have been discussed above.

The Examiner turns to the Applicant's disclosure (improperly, as discussed above) for features such as data pads, gate pads, and relative substrate sizes. The Examiner additionally turns to the Applicant's disclosure for teachings pertaining to capillary action. However, the Applicant's disclosure (even if it could be used) fails to address the deficiencies of Kim and Yamamoto in suggesting a claimed embodiment of the invention.

As a result, a person having ordinary skill in the art would not be motivated by Kim, Yamamoto and the Applicant's disclosure to produce a claimed embodiment of the invention. Thus, a *prima facie* case of obviousness has not been made over Kim, Yamamoto and the Applicant's disclosure. Accordingly, this rejection is overcome and withdrawal thereof is respectfully requested.

Conclusion

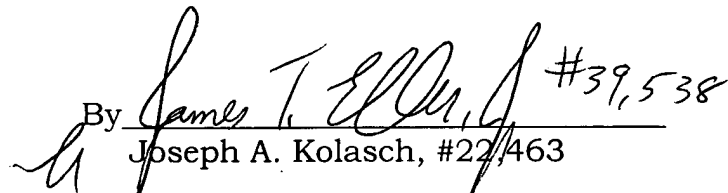
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert E. Goozner, Ph.D. (Reg. No. 42,593) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.


Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims have been amended as follows:

1. (Amended) A method of filling a liquid crystal material into a liquid crystal display panel which comprises:

providing the liquid crystal display panel having an upper substrate, a lower substrate and a seal pattern having an injection port at a peripheral portion of the seal pattern;

preparing an [open portion that elongates from the injection port to a side of the lower substrate;] indentation that is indented from a side of the lower substrate to the injection port;

providing a tray having a protruded portion corresponding to the open portion;

filling the tray with the liquid crystal material;

inserting the protruded portion into the injection port; and

introducing the liquid crystal material into the liquid crystal display panel through the protruded portion and the injection port.

2. (Amended) The method of claim 1, wherein the [open portion of the lower substrate] indentation has a wider width than the injection port, so that the liquid crystal material can be easily injected.

9. (Amended) A liquid crystal display panel comprising:

an upper substrate;

a lower substrate assembled with the upper substrate, the lower substrate having an [open portion that elongates from an injection port to a side of the lower substrate;] indentation that is indented from a side of the lower substrate to an injection port;

liquid crystal material interposed between the upper and lower substrates;
and

a seal pattern formed between the upper and lower substrates, the seal pattern having an injection port.

10. (Amended) The liquid crystal display panel of claim 9, wherein the [open portion of the lower substrate] indentation has a wider width than the injection port.

16. (Amended) A tray for filling a liquid crystal material into a liquid crystal panel, the liquid crystal panel comprising an upper substrate, a lower substrate, a seal pattern having an injection port at a peripheral portion of the seal pattern, and an [open portion that elongates from the injection port to a side of the lower substrate,] indentation that is indented from a side of the lower substrate to an injection port, the tray comprising:

a body defining a cavity therein; and

a protruded portion extending from said body and corresponding to the [open portion] indentation of the liquid crystal panel.

18. (Twice Amended) A system for filling a liquid crystal material into a liquid crystal panel, the system comprising:

a liquid crystal display panel including:

an upper substrate;

a lower substrate assembled with the upper substrate, the lower substrate having an [open portion that elongates from an injection port to a side of the lower substrate;] indentation that is indented from a side of the lower substrate to an injection port;

liquid crystal material interposed between the upper and lower substrates;
and

a seal pattern formed between the upper and lower substrates, the seal pattern having [an] the injection port; and

a tray including:

a body defining a cavity therein; and

a protruded portion extending from said body and corresponding to the [open portion] indentation of the liquid crystal display panel.